APHRS NEWSLETTER

Chief Editor: Anil Saxena

Deputy Editor: Kazuo Matsumoto

Managing Editors:
Hsuan-Ming Tsao    Toshiko Nakai
David Heaven      Ming-Shien Wen
Pipin Kojodjojo    Jacky Chan
Nwe Nwe           Yuanning Xu
Katsuhiko Imai    Arisara Suwanagool
Jae-Min Shim      Preecha Uerojanaungkul

Contents

02  Progress of Country-to-Country Match Program in Myanmar
05  APHRS Participation in 5th Myanmar Cardiac Society Conference
08  Electrophysiology and Cardiac Pacing in New Zealand
10  Join APHRS Membership
11  Boston Scientific: Lumipoint™ Software Module
12  APHRS 2019: Bangkok
Myanmar joined the Asia Pacific Heart Rhythm Society in 2016. As a new member country, Myanmar was matched with Taipei Veteran General Hospital, Taiwan under the leadership of Prof. Shih-Ann Chen, in the Country-to-Country Match Program.

The aim of the program is to upgrade arrhythmia management service in Myanmar and to keep abreast with international standards. Letter of understanding was signed in July 2017 between University of Medicine (1) Yangon, Myanmar and Taipei Veteran General Hospital, Taiwan.

Since then, the electrophysiologists from TVGH (Taipei Veteran General Hospital) visited the EP lab at Yangon General Hospital for cooperation in performing difficult EP cases and giving practical teaching to the junior EP physicians.
03 PROGRESS OF COUNTRY-TO-COUNTRY MATCH PROGRAM IN MYANMAR

Lecture by Prof. Shih-Ann Chen and Dr. Li-Wei Lo at University of Medicine (1) Yangon and Department of Cardiology, Yangon General Hospital

Staffs from Taipei Veteran General Hospital and Yangon General Hospital at EP Lab, Yangon General Hospital
During the three visits, the team performed altogether 18 cases using Ensite Precision 3D Mapping System, including seven cases of ventricular tachycardia ablation.

Among the cases of ventricular tachycardia ablation, there were interesting cases of arrhythmogenic right ventricular cardiomyopathy, fascicular ventricular tachycardia with ablation of both anterior and posterior fascicles and mitral annular ventricular tachycardia. One patient with incessant ventricular tachycardia with frequent ICD shocks, underwent successful substrate ablation with uneventful recovery and free from ICD shocks in the follow-up period.

Our future direction is to focus on the VT ablation until 5 years of the program. Due to the Country-to-Country Match Program, the local team benefits from foreign experts in learning new and sophisticated techniques, as well as achieving an excellent practical learning platform for doctors, nurses and technicians. The Match Program contributes significantly towards cardiac arrhythmia treatment in Myanmar.

Management of arrhythmia service in Myanmar has also been upgraded with help of experienced electrophysiologists from Australia and Singapore.
The 5th Myanmar Cardiac Society Conference was held at Lotte Hotel, Yangon, Myanmar on 2nd and 3rd March 2019, with the theme of “Marching Towards Comprehensive Heart Health”.

Eminent speakers from member countries of Asia Pacific Heart Rhythm Society participated in the conference to share their most updated and evidence-based knowledge to local doctors in the field of cardiology and general medicine practice.

In the mini-symposium on the first day, Prof. Hsuan-Ming Tsao, Professor of the National Yang Ming University, Taiwan gave a talk on how to optimize the medication and device therapies in patients with atrial fibrillation and heart failure. Dr. Glenn David Young, Consultant Cardiologist and Electrophysiologist from Royal Adelaide Hospital, Australia discussed about the evidence-based studies on the prevalence and risk of stroke in patients with subclinical atrial fibrillation.
On the second day of the symposium, Prof. Hui-Nam Pak, Division of Cardiology, Yonsei University Health System, Korea, lectured on management of post-operative atrial fibrillation. Prof. Andrew McGavigan, Director of Arrhythmia Services, Flinders Medical Centre, Adelaide, Australia, clarified which patients with atrial fibrillation should be referred for AF ablation based on guidelines. Dr. Tachapong Ngarmukos, Arrhythmia Service, Ramathibodi Hospital, Thailand elaborated on significance of sudden cardiac death, knowledge and tools to help predicting the risk in patients with specific diseases. Furthermore, Dr. Sofian Johar, Consultant Cardiologist from RIPAS Hospital/ Gleneagles JPMC, Brunei Darussalam gave a scientific talk on stroke prevention in atrial fibrillation.
The two-day symposium has been a fruitful event for the Myanmar’s doctors, and we would like to express gratitude to all the speakers and participants from the Asia Pacific Heart Rhythm Society.
The field of electrophysiology (EP) and cardiac pacing has evolved dramatically over the past 50-60 years.

Diagnostic EP studies with combined intracardiac recording and programmed stimulation was first used in the late 1960s. During that time, cardiac surgery was still the treatment of choice for refractory tachyarrhythmias. The advent of programmed electrical stimulation with simultaneous recordings from multiple intracardiac electrodes in the 1970s greatly improved our understanding of the nature of various arrhythmias. Catheter ablation with direct current was introduced in the early 1980s, and slowly began to replace surgical ablation. However, the high voltage discharge was associated with a high incidence of complications and was superseded by radiofrequency catheter ablations in the early 1990s and cryoablation in the late 1990s.

The first invasive EP study in New Zealand (NZ) was performed by Dr Ron Easthope at Wellington Hospital in November 1974. Dr Hamid Ikram followed shortly after with an invasive EP study in Christchurch in 1975. He went on to perform the first direct current ablation in NZ in 1987. The first radiofrequency ablation in NZ was performed by Dr Warren Smith at Green Lane Hospital in 1991 for a left free wall accessory pathway. Catheter ablation is now considered first line treatment for many tachycardias, with atrial fibrillation (AF) ablation becoming an increasingly important therapy option.

The first implantable pacemaker was developed by Rune Elmqvist and implanted by Mr Ake Senning in Sweden in 1958, followed by the first battery-powered pacemaker implanted by Dr William Chardack in USA in 1960. The first pacemaker implant in NZ was performed at Green Lane Hospital in late 1961 by Mr David Cole. The device was a large mercury-zinc powered pacemaker that failed after 5 months. The other hospitals across the country followed shortly after, with Mr John Borrie at Dunedin Hospital in 1962, Mr James Baird at Wellington Hospital in 1963, Mr Heath Thompson at Christchurch Hospital in 1964 and Mr Geoff Allen at Waikato Hospital (Hamilton) in 1969.

The earlier pacemaker systems were performed with epicardial lead placement. Permanent transvenous pacing was adopted relatively late in New Zealand, with the first transvenous pacemaker implanted in Dunedin in 1967. The first and only nuclear-powered pacemaker was implanted by Dr Ron Easthope and Mr Bede Squire at Wellington Hospital in 1973. Shortly after, the first lithium-powered pacemaker was implanted at Green Lane Hospital in 1974 in a 30-month old boy with previous VSD repair and post-operative complete heart block with a failing mercury-zinc pacemaker system.
Cardiac implantable electronic devices (CIED) now include permanent pacemakers (PPM) and implantable cardioverter defibrillators (ICD). PPM are primarily indicated for the management of patients with symptomatic bradyarrhythmias. A primary prevention ICD is indicated in patients with symptomatic heart failure and left ventricular ejection fraction (LVEF) ≤35% despite optimal medical therapy who are at risk of sudden cardiac death (SCD), whilst a secondary prevention ICD is indicated in patients who have survived a cardiac arrest or hemodynamically unstable ventricular arrhythmia.

From those early beginnings, the EP and CIED service has expanded significantly across NZ. We now have 8 EP ablation centres (including 4 private centres), 14 pacemaker implantation centres (including 4 private centres) and 7 ICD implant sites serving a population of 4.7 million. There are 17 Electrophysiologists and approximately 25 CIED implanting physicians. In the past decade, our PPM implant rates have increased by 57% whilst our ICD implant rates have increased by 92%.

Based on data from the Asia Pacific Heart Rhythm Society White Book, for the year 2016, New Zealand had the highest PPM and ICD implant rates in the Asia Pacific region, although there was no data received from Australia (we know their implant rates are higher in other Surveys-Dr Harry Mond). We ranked second in EP ablation rates, trailing only behind Japan. AF ablations comprised 25% of all our EP cases, with our AF ablation rates ranked third behind Japan and Brunei.

References

JOIN OUR MEMBERSHIP!

Become A Member of APHRS to Enjoy the Following Benefits:

✓ Discount registration to the annual scientific meeting and other symposia organized by APHRS

✓ Eligibility to apply for all the education and training programs organized or endorsed by APHRS; as well as APHRS Fellowship Programs

✓ Free Society’s newsletter and publications

✓ Online access to APHRS Members Portal

✓ Eligibility to vote in APHRS Board elections

<table>
<thead>
<tr>
<th>REGULAR</th>
<th>ASSOCIATED</th>
<th>ALLIED</th>
<th>INDUSTRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physicians or Scientists</td>
<td>Physicians or Scientists in Training</td>
<td>Nurses, technicians or other associated allied professionals</td>
<td>Persons in related industries</td>
</tr>
<tr>
<td>from US$50.00</td>
<td>from US$25.00</td>
<td>from US$25.00</td>
<td>from US$50.00</td>
</tr>
</tbody>
</table>

SIGN UP TODAY AT: www.aphrs.org/membership/join-now

Questions? Email us at membership@aphrs.org
LUMIPOINT™ SOFTWARE MODULE

The next level of ultra-HD Mapping
Available on the RHYTHMIA™ HDx Mapping System

Introducing the first suite of tools to streamline interpretation of HD mapping data.

LUMIPOINT software module automates identification of clinically relevant areas of interest, enabling rapid clinical decisions and effective minimum ablation strategies.

www.bostonscientific.com/lumipoint

AT activation map of critical isthmus courtesy of Connor Haugh, MD, Catholic Medical Center.

All cited trademarks are the property of their respective owners. CAUTION: The law restricts these devices to sale by or on the order of a physician. Indications, contraindications, warnings and instructions for use can be found in the product labelling supplied with each device. Information for the use only in countries with applicable health authority product registrations. Materials not intended for use in France.

EP-617402-AA © 2019 Boston Scientific Corporation or its affiliates. All rights reserved.
CALL FOR ABSTRACTS

Submission Opens 1 April 2019
Submission Deadline 30 June 2019
Notification of Acceptance 31 July 2019

Early Bird Registration
Now Open!
Deadline 15 August 2019

CONTACT US
Congress Secretariat: CMO Public Company Limited
- APHRS 2019 Secretariat: aphrs2019@cmo-group.com
- APHRS 2019 Abstract: abstract@aphrs2019.com
- APHRS 2019 Registration: registration@aphrs2019.com